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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/539,642

05/18/2006

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25555 7590 12/09/2008

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EXAMINER

KING, FELICIA C

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/539,642 | Applicant(s) FRANKLIN, BRIAN JOHN | |
| | Examiner FELICIA C. KING | Art Unit 4152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This detailed action is in response to claims 35-50 in Application 10/539642. Claims 1-34 were previously cancelled.

Specification

1. The disclosure is objected to because of the following informalities: The specification lacks headings for the specific sections.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 35, 36, 38-41, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gare (Publication Number US 2002/0127319) in view of Ang et**

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al. (U.S. Patent Number 5,019,406) and Lusas et al. (U.S. Patent Number 5,296,253).

4. **Regarding Claim 35:** A food additive composition having bean powder; water absorbent vegetable fiber, one or more inorganic calcium compounds; and modified cellulose, where the bean powder is present in a proportion of between 50 to 90% by weight based on the total weight of additive.

5. Gare discloses a composition [para 0035] containing vegetable fiber [0053], an inorganic calcium compound [0057]; and modified cellulose [0058]; and bean fiber [0052] but does not disclose the presence of bean powder in a proportion between 50 to 90%.

6. However, Lusas discloses a legume powder [col. 4, lines 60-63] and the legume powder present at least 25% of the blended mixture [col. 4, lines 60-63] and Ang discloses a food additive where the additive is entirely composed of cellulose, bean fiber and vegetable fiber (sugar beet fiber) [col.2, lines 34-38].

7. Gare and Lusas and Ang are analogous art because they are from the same field of endeavor which is food compositions containing vegetable products as additives.

8. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Gare, Lusas and Ang before him or her to modify the composition of Gare to incorporate the amount of bean powder of Lusas and Ang because Gare allows for and teaches a bean fiber that can be in addition to a vegetable fiber [0036]. Gare discloses that it is desirable to include in more than one source of fiber [0024] where vegetable fiber and beans are included in a desirable group [0024].

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Further, it would be advantageous to incorporate cellulose and other fibrous materials in the additive, as Ang teaches, fibrous additives such as bean and vegetable additives can achieve good moisture retention properties in cooked food [col. 2 lines 30-38] without diminishing the taste of the cooked food [col.2, lines 64-66].

9. **Regarding Claim 36:** A food additive composition as claimed in claim 35 in which the proportion of bean powder present is from 80 to 90% based on the total weight of additive.

10. Gare, Lusas and Ang teach as discussed above.

11. **Regarding Claim 38:** A food additive composition as claimed in claim 35 in which the water absorbent vegetable fibre is present at from 3 to 12% by weight based on the total weight of additive.

12. Gare discloses a vegetable fiber present in an amount of 5% based upon the total weight mixed ingredients [0039; 0043 where vegetable fiber named in 0052 can be used as a substitute for psyllium fiber]. Lusas and Ang disclose as discussed above.

13. **Regarding Claim 39:** A food additive composition as claimed in claim 35 in which the water absorbent vegetable fibre is potato fiber.

14. Gare discloses potato fiber as an additive in a food composition [para. 0053]. Lusas and Ang disclose as discussed above.

15. **Regarding Claim 40:** A food additive composition as claimed in claim 35 in which the inorganic calcium compound is present at from 2 to 10% by weight based on the total weight of additive.

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16. Gare discloses inorganic calcium compounds [0057] present in the amount of .1 - 15% [0037 where any inorganic calcium compounds may be used as a substitute for the calcium sodium caseinate named in 0037]. Lusas and Ang disclose as discussed above.

2. However, Gare and the instant claims differ in that Gare does not teach the exact same proportions as the recited in the instant claims.

3. However, one having ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Gare overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one having ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that; "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", *In re Peterson* 65 USPQ 2d 1379.

17. **Regarding Claim 41:** A food additive composition as claimed in claim 35 in which the inorganic calcium compound is calcium carbonate.

18. Gare discloses calcium carbonate [0061] as an inorganic calcium compound. Lusas and Ang discloses as discussed above.

19. **Regarding Claim 43:** A processed food product or food component formulation comprising a food additive composition having bean powder; water

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absorbent vegetable fiber; one or more inorganic calcium compounds; and modified cellulose, where the bean powder is present in a proportion of between 50 to 90% by weight based on the total weight of additive.

20. Gare discloses a composition [para 0035] containing vegetable fiber [0053], an inorganic calcium compound [0057]; and modified cellulose [0058]; and bean fiber [0052] but does not disclose the presence of bean powder in a proportion between 50 to 90%.

21. However, Lusas discloses a legume powder [col. 4, lines 60-63] and the legume powder present at least 25% of the blended mixture [col. 4, lines 60-63] and Ang discloses a food additive where the additive is entirely composed of cellulose, bean fiber and vegetable fiber (sugar beet fiber) [col.2, lines 34-38].

22. Gare, Lusas and Ang are analogous art because they are from the same field of endeavor which is food compositions containing vegetable products as additives.

23. See Reasoning under Regarding Claim 35.

24. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the percentage of bean powder for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

25. **Regarding Claim 44:** A processed food product or food component formulation according to claim 43, wherein the processed food product or food component formulation is selected from the group consisting of all savoury and sweet processed foods, dough based foods and batters (both fermented and non-fermented),

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inclusive of potato doughs, fillings, toppings, coatings or dustings of dough based foods, batters and potato doughs, including dry crumb coatings and the dusting of such doughs at specific processing steps, puff pastry products, pasta, pies, rolls and slices with both sweet and savoury fillings or toppings, bread, including crusty bread products, baguettes, loaves and rolls (including fillings), garlic bread, soft bread products, fruited buns, hot dog rolls, burger buns, baps and naan bread, pitta bread, tortilla wraps and pizzas, both pizza bases or topped pizzas, batters for Yorkshire pudding, choux buns, various nuggets, fritters, crumpets, cakes, sponge cakes, puddings, potato products, roast potatoes, French fries, potato wedges waffles, potato croquettes and shaped potato products, baked or fried filo pastries, spring rolls, samosas, parcels, morning goods including croissants, Danish pastries, doughnuts, including filled and topped doughnuts, shortcrust pastries, including pies and crumbles (with both sweet and savoury fillings), and bread crumb for coating, crumb coated fish or chicken pieces or products, including shaped fish or chicken products such as fingers or nuggets.

26. Gare, Lusas and Ang disclose as discussed above. Further, Gare discloses processed food products such as snack bars and bakery products, and toppings [0035]. Lusas discloses finger foods [col. 17, lines 8-12], nutritious food for children and bean based confections [col.18, lines 47-50] and Ang discloses the food additive as incorporated in coating for chicken products [col.6 lines 3-6].

27. **Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gare (Publication Number US 2002/0127319) in view of Lusas et al. (U.S. Patent Number**

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5,296,253) and Ang et al. (U.S. Patent Number 5,019, 406) and in further view of Baker et al. (U.S. Patent Number 5,902,629).

28. **Regarding Claim 37:** A food additive composition as claimed in claim 35 wherein the bean powder is lima bean powder.

29. Gare, Lusas and Ang disclose as discussed above, but do not disclose a bean powder which is lima bean powder.

30. However, Baker discloses a bean powder made from lima beans.

31. Gare, Lusas, Ang and Baker are analogous art because they are from the same field of endeavor which is food additive compositions.

32. At the time of the invention it would have been obvious to one of ordinary skill in the art having the teaching of Gare, Lucas, Ang and Baker before him or her to modify the bean containing composition of Gare, Lucas, and Ang to include the lima bean of Baker because the lima bean is considered economical and cooks quickly [col. 4, lines 2-4] which would appear advantageous to food products prepared for quick cooking such as in foods prepared in a microwave.

33. **Claims 42 and 45 – 48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gare (Publication Number US 2002/0127319) in view of Lusas et al. (U.S. Patent Number 5,296,253) and Ang et al. (U.S. Patent Number 5,019, 406) and Ohlin et al (U.S. Patent Number 6,123,975).**

34. **Regarding Claim 42:** A food additive composition as claimed in claim 35 in which the modified cellulose is present at between 0.5 and 10% by weight based on the total weight of additive.

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35. Gare and Lusas disclose as discussed above but do not disclose modified cellulose present in an amount between 0.5% and 10%.

36. However, Ohlin discloses modified cellulose present in an amount of 1-6% in a food additive composition [col. 3, line 60].

37. Gare, Lusas and Ohlin are analogous art because they are from the same field of endeavor which is food additive compositions.

38. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Gare, Lusas and Ohlin to modify the compositions of Gare and Lusas to include the proportion of modified cellulose disclosed in Ohlin because modified celluloses in the amount proposed, are a good substitution for flour because they are less likely to cause hardening and have good retention of moisture in foods that are heated in the microwave [col. 3, lines 16-18; and 46-49; and 60].

39. **Regarding Claim 45:** A processed food product or food component formulation according to claim 43, wherein the processed food product or food component formulation is selected from the group consisting of a base dough formulation comprising said food additive composition at 0.5% to 5.0%; a base batter formulation comprising said food additive composition at 0.75% to 8.5%; a base potato dough formulation comprising said food additive composition at 0.5% to 3.0%; a filling or topping for a dough product comprising said food additive composition at 1.0% to 5.0%; a processed food comprising said food additive composition

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as a dusting or coating at 0.1% to 1.5%; a finished or part finished food product comprising said food additive composition in a microwave heatable packaging material; a premix for making a microwave heatable processed food comprising said food additive composition in combination with a base ingredient of a processed food; and a premix for making a microwave heatable processed food comprising said food additive composition in combination with a base ingredient of a processed food in which the base ingredient is flour, and the food additive is present at 1% to 9%.

40. Gare, and Lusas do not explicitly disclose the limitations of Claim 45.

41. However, Ang discloses a base batter formulation where the additive is at 3% [col.4, lines 45-50] and Ohlin discloses a food additive that is present in an amount of 2% to 20% in a dough product [col. 4, lines 23-25; col. 8, lines 25-27] and discloses the food additive as usable in microwave heated food products [col. 3, lines 46-50].

42. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Gare, Lusas, Ang and Ohlin before him or her to modify the incorporation of the food additive of Gare, Lusas and Ang to further include the disclosed food additive proportions in Ang and Ohlin because the food additive is intended to improve the taste, shape, appearance and rheologic texture of a product heated by microwave [Ang col. 2, lines 62-67]; [Ohlin col.4, lines 62-63], not to replace or overpower the food product in which it is used. Modification of Gare, Lusas and Ang

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in using of the food additive in a microwave heated food product as disclosed in Ohlin is also obvious because the additive gives a product with a texture, appearance and taste comparable to that found in food compositions that are heated by conventional methods [col. 4, lines 62-65]. The dual application of the food additive in both microwave and conventional heating methods would be very advantageous as such a versatile application would be attractive to the consumer.

43. **Regarding Claim 46:** A method of preparing processed foods for heating or cooking in a microwave oven, the method comprising incorporating into a food or ingredient for a food a suitable amount of a food additive composition having bean powder; water absorbent vegetable fiber, one or more inorganic calcium compounds; and modified cellulose, where bean powder is present in a proportion of between 50 to 90% by weight based on the total weight of additive.

44. Ohlin discloses preparing fully or partially baked products for reheating in a microwave [col. 4, lines 51-55, 60-61] and incorporating into a food product an additive [col. 4, lines 56-59].

45. Gare, Lusas, Ang, and Ohlin disclose as discussed above. See reasoning in "Regarding Claim 45".

46. **Regarding Claim 47:** A method according to claim 46 in which a suitable amount of food additive composition is from 0.15 to 10% depending on the food product.

47. Gare, Lusas, Ang and Ohlin disclose as discussed above.

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48. Further, Ang discloses a base batter formulation where the additive is at 3% [col.4, lines 45-50] and Ohlin discloses a food additive that is present in an amount of 2% to 20% in a base dough product [col. 4, lines 23-25; col. 8, lines 25-27] and discloses the food additive as usable in microwave heated food products [col. 3, lines 46-50].

49. See Reasoning in "Regarding Claim 45".

50. **Regarding Claim 48:** A method according to claim 46 in which the food additive composition is added to base dough formulations at 0.5% to 5.0%, to base batter formulations at 0.75% to 8.5%, to base potato dough formulations at 0.5% to 3.0%, to fillings/toppings at 1.0% to 5.0%, or to subsequent dough processing steps at 0.1% to 1.5%.

51. Gare, Lusas, Ang and Ohlin disclose as discussed above.

52. Further, Ohlin discloses a food additive that is present in an amount of 2% to 20% in a base dough product [col. 4, lines 23-25; col. 8, lines 25-27]. See Reasoning in "Regarding Claim 45".

53. **Regarding Claim 50:** A method according to claim 46 in which the processed foods are baked or fried, then cooled frozen and packaged.

54. Gare, Lusas, Ang and Ohlin disclose as discussed above.

55. Further, Ohlin discloses dough containing an additive [col. 6, lines 15-17] that is then baked [col. 6, 26-28] and cooled frozen and packaged [col. 6, lines 29-31].

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56. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Gare, Lusas and Ang before him or her to modify the treatment of food incorporating the additive to allow for the cooled , frozen and packaged state as in Ohlin because the additives of Gare, Lusas, and Ang are advantageously used in products that are frozen because normally during the cooling of dough products water is retained within the product [col. 1, lines 45-51] and when used in conjunction with the additive the normal leaching out and hardening of bread does not occur to the same extent [col. 3, lines 35-45].

57. **Claims 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gare (Publication Number US 2002/0127319) in view of Lusas et al. (U.S. Patent Number 5,296,253), Ang et al. (U.S. Patent Number 5,019, 406) and Ohlin et al (U.S. Patent Number 6,123,975) in further view of Koumarianos (U.S. Patent Number 6,488,957).**

58. **Regarding Claim 49:** A method according to claim 46 in which the food additive ingredient is dusted on the surface of a food to be processed.

59. Gare, Lusas, Ang and Ohlin disclose as discussed above but do not disclose a food additive that is dusted on the surface of a food to be processed.

60. However, Koumarianos discloses a food additive that can be sprinkled onto food being cooked [col. 4, lines 24-27].

61. Ohlin, Gare, Lusas, and Koumarianos are analogous art because they are from the same field of endeavor which is food additive compositions.

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62. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ohlin, Gare, Lusas and Koumarianos before him or her to modify the mode of application of the food additives of Ohlin, Gare, and Lusas for the sprinkling of the food additive disclosed in Koumarianos because the food additives in the former art are presented in powder form but their disclosures call for blending or mixing the powdered mixtures in with a food product [Ohlin col. 4, line 15; Gare 0035, Lusas [col. 4, lines 60-63] . The food additive in Koumarianos contains many of the ingredients contained in the referenced art. For instance the food additive is made up of a mixture of beans including lima beans and grains [col. 4. lines 58 – 60 and 65], is in a powder form and is used in either processed or processing food [col. 4, lines 22-24]. Incorporating a sprinkling method for the food additive would provide more versatility in applying the additive to food products in any form [Koumarianos; col. 4, lines 23-25].

Conclusion

63. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

64. Cox et al (U.S. Patent Number 4,844,936) which discloses a powdered legume material that could be lima bean as a main ingredient in a cohesive vegetable product.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FELICIA C. KING whose telephone number is (571)270-

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3733. The examiner can normally be reached on Mon- Thu 7:30 a.m.- 5:00 p.m.; Fri 7:30 a.m. - 4:00 p.m. alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FELICIA C KING/
Examiner, Art Unit 4152

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 4152